

REMARKS

This Amendment is responsive to the Office Action dated October 11, 2002, subject to the grant of Applicant's Petition for Revival of an Application Abandoned Unintentionally Under 37 C.F.R. § 1.137(b), which has been filed concurrently herewith. In this Amendment, Applicants have amended claims 14, 16, 19, 21, 24 and 30, and canceled claims 18, 23 and 27-29 without prejudice to the possible submission of such canceled claims in future applications. Claims 14-17, 19-22, 24-26 and 30 are now pending in the present application.

In the Office Action, the Examiner rejected claims 14-30 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,500,012 to Brucker et al. The Examiner also rejected claims 14-30 under 35 U.S.C. § 103(a) as being unpatentable over published PCT application no. WO 92/10142 to Makower in view of U.S. Patent No. 5,295,484 to Marcus et al.

Applicants respectfully traverse the rejections under sections 102 and 103, at least to the extent they may be considered applicable to the pending claims, as amended. The references applied by the Examiner fail to disclose or suggest the features required by the pending claims. Moreover, the applied references provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

Unlike amended claims 14-17 and 19-22, for example, Brucker et al., Makower and Marcus et al. each fail to disclose a treatment device assembly comprising a needle having a radio frequency electrode with a hollow core and an insulating layer surrounding a portion of the electrode proximate a distal end of the electrode, in combination with a cannula for slidably receiving the needle so as to guide said needle, a control mechanism for extending and retracting the needle, and means for interlocking the assembly to the housing of an endoscopic surgical instrument so as to extend said needle and cannula through a conduit defined by the surgical instrument.

Similarly, Brucker et al., Makower and Marcus et al. neither disclose nor suggest a medical treatment device comprising an elongate probe member having a guide cannula mounted in a passageway of an elongate probe member, a needle slidably disposed in a lumen of the guide cannula, wherein the needle is in the form of a radio frequency electrode having an axial lumen extending therethrough with an insulating layer surrounding a portion of the electrode proximate a distal end of the electrode, and a control mechanism coupled to a proximal extremity of the

probe member and secured to the needle for advancing and retracting the needle relative to the guide cannula, as set forth in amended claims 24-26 and 30.

Brucker et al.

Brucker et al. describes an ablation catheter system for ablation of myocardial tissue. In FIGS. 10 and 11, Brucker et al. depicts ablation catheters carrying ablation elements in the form of radio frequency and microwave antennas, respectively. The ablation catheters of FIGS. 10 and 11 include no structure resembling a needle having a radio frequency electrode with a hollow core and an insulating layer surrounding a portion of the electrode proximate a distal end of the electrode, as set forth in amended claims 14-17 and 19-22, nor any structure resembling a needle in the form of a radio frequency electrode having an axial lumen extending therethrough with an insulating layer surrounding a portion of the electrode proximate a distal end of the electrode, as set forth in amended claims 24-26 and 30. Elements 128 and 178 in FIGS. 10 and 11, respectively, are fixation wires, and not radio frequency electrodes. In FIG. 12, Brucker et al. depicts a needle for delivery of chemicals to the myocardium to achieve chemical ablation. The embodiment of FIG. 12 of Brucker et al. fails to contemplate a radio frequency electrode as defined by Applicants' claims.

In view of the above differences, Brucker et al. fails to anticipate the requirements of Applicants' pending claims. Moreover, there is no teaching within Brucker et al., or any other prior art reference of record, that would have suggested the desirability of modification to include such requirements in the Brucker et al. ablation catheter system. Indeed, none of the embodiments described by Brucker et al. even contemplates a needle having a radio frequency electrode, let alone the incorporation of an insulating layer as required by amended claims 14-17, 19-22, 24-26 and 30. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of those claims in view of Brucker et al.

Makower

Makower describes a catheter with a movable needle for placing a fiber optic element through a body passageway wall and into an adjacent organ. The needle described by Makower does not have or take the form of a radio frequency electrode. Rather, the Makower needle serves merely as a conduit for placement of an optical fiber to deliver laser ablation energy.

Makower makes no mention of the use of the needle as a radio frequency needle, nor any of the modifications that would have been necessary to realize a radio frequency needle. Moreover, Makower fails to suggest the incorporation of an insulating layer surrounding a portion of a needle electrode. Indeed, there would have been no need for such an insulating layer in the Makower system because Makower fails to contemplate delivery of radio frequency energy via the disclosed needle. On the contrary, the Makower system already provides an ablation element in the form of the optical fiber delivered via the needle. Notably, the needle described by Makower is not even maintained within the ablation site during delivery of ablation energy. Therefore, one of ordinary skill in the art, in view of Makower and without access to Applicants' own disclosure, would have had no suggestion whatsoever of the desirability of such a modification to arrive at Applicants' claimed invention.

Marcus et al.

Marcus et al. provides no teaching that would have suggested modification of Makower to incorporate the features set forth in Applicants' claims. Although Marcus et al. may refer to a variety of different ablative sources, as stated by the Examiner, this reference makes no mention of the desirability of modifications necessary to incorporate, in the Makower system, the particular limitations required by Applicants' claims. For example, Marcus et al. fails to provide a teaching that would have suggested the incorporation of a radio frequency needle in the Makower system, or the incorporation of an insulating layer to surround a portion of a needle electrode. Again, such modifications would not have been obvious or even practical in the Makower system for the reasons discussed above. Therefore, Marcus et al. offers no teaching sufficient to overcome the fundamental deficiencies in the Makower reference.

Conclusion

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

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